

# CAPACITY MANAGEMENT PLAN

Level 3 is a new vendor in the Tex-AN NG environment. Level 3 submits the following plan to ensure full understanding of how Level 3 plans our network capacity. In addition, Level 3 will partner with the DIR to jointly ensure that justifiable IT capacity always exists and that it is matched to current and future identified needs of the business.

## Key Objectives:

- Maximize efficient and cost justified use of resources within and among delivery organizations
- Provide DIR customers with sufficient capacity in support of ordered services and associated Service Level Agreements (SLAs)
- Develop, Maintain, and Implement the Capacity Plan:
  - Work in collaboration with the DIR to collect business data (including recent and historical capacity data) and develop capacity requirements
  - Analyze and validate capacity trends to develop capacity requirements, identify capacity options and costs, and obtain standard and appropriate thresholds
  - Identify capacity options and costs
  - Produce a document focusing on the capacity plan and options for internal Level 3 business and DIR approval
- Assess Capacity Requirements: includes work activities to determine the scope of the capacity assessment, perform application sizing and service modeling, define the human resource model, perform other capacity analyses, analyze the impact of requirements, identify options and costs, and produce the capacity assessment document.

## Level 3 Capacity Management Description

The Level 3 planning organization models the network in a steady state, and a pre-emptive state for any single failure scenario. Any link >60% (in a failure scenario) or >40% in a steady state, is reported on a weekly metrics internal presentation. Level 3's IP planning and deployment teams trigger an augment to ensure it is in place prior to reaching 90% (in a failure state). The network is also monitored to ensure that the network is meeting customer service level agreements (SLAs). If the probes detect an alarm, the NOC will work with the hardware vendors to resolve the issue. If the issue is capacity related, a ticket will be dispatched to our planning and deployment organization to augment the network. Level 3's planning and deployment department proactively monitors the network for capacity issues via an internal system. The core service objective is to address capacity issues prior to any alarms being created.

Level 3 intends to work with DIR to define agreeable thresholds on NNI utilization (as well as any additional critical links). The thresholds should be based on trending information (historical data) or additional DIR initiatives that project a significant increase. We will work to ensure that available NNI bandwidth will not become a bottleneck which would adversely impact service performance.

In addition to the NNI infrastructure links, it is the goal of Level 3 to identify and monitor trends on the top utilized customer access circuits. During scheduled intervals for service reviews (monthly or quarterly), Level 3 will provide a list of customer access circuits that are above a defined average utilization threshold (e.g. 75%). This will help in forecasting overall future network requirements and communicate to our joint customers when they may be approaching utilization levels that could adversely affect their performance.